

CLAIMS

1. A distributed storage network comprising a plurality of interconnected computers,
5 said computers including a plurality of host computers and at least one client computer,
wherein said client computer stores client code comprising:
- a) storage initiation code executable to initiate storage of a data item on one or more of
said plurality of host computers;
10 b) storage condition generation code executable to generate one or more interpretable
storage conditions indicating characteristics of host computers suitable for storing said
data item;
- 15 wherein each of said host computers stores host code including:
- c) host computer characteristic provision code executable to provide host characteristic
data indicating one or more characteristics of said host computer;
- 20 wherein at least one of said interconnected computers has:
- d) condition interpreter code executable to interpret said one or more interpretable storage
conditions in the light of said one or more host characteristics provided by said host
computer and thereby to establish whether said host computer meets said storage
25 conditions;
- said host code further comprising:
- e) data item storage code executable to store said data item in said host computer on the
30 execution of said condition interpreter code finding that said host computer meets said
requirements.
2. A distributed storage network according to claim 1 in which said storage initiation
code causes the execution of said storage condition generation code, said storage

initiation code further sending said storage condition with said data item to one or more of said host computers.

3. A distributed storage network according to claim 1 or 2 in which each of said host
5 computers stores said condition interpreter code.

4. A distributed storage network according to claim 3 in which each of said host
computers further contains forwarding code executable, on the execution of said condition
interpreter code finding that the host computer does not meet said conditions, to forward
10 said data item and said storage condition to another of said host computers.

5. A distributed storage network according to claim 1 in which at least one of said
computers stores both said client code and said host code.

15 6. A distributed storage network according to any preceding claim in which said one
or more interpretable storage conditions are persistently stored at one or more of said
computers.

7. A distributed storage network according to claim 6 wherein said persistent
20 storage is provided by a database stored at each of said one or more computers providing
persistent storage of said interpretable storage conditions.

8. A distributed storage network according to claim 6 or 7 in which one or more
computers further stores condition editor code executable to provide a user with an
25 interface enabling the user to update said interpretable storage conditions or to record
new interpretable storage conditions.

9. A distributed storage network according to claim 8 in which said client computer
further stores said condition editor code.

30

10. A distributed storage network according to claim 1 in which said condition
interpreter code interprets said one or more interpretable storage conditions using schema
data which indicates a common structure for said interpretable storage conditions.

11. A distributed storage network according to any preceding claim in which said interpretable storage conditions form a component of a rules data structure which further includes action data indicating actions to be carried out by one of said computers on said host computer meeting said storage condition.

5

12. A distributed storage network according to claim 11 in which said rules data structure forms a component of a policy data structure which further includes event data indicating one or more events which must take place in order to trigger the execution of said condition interpreter code.

10

13. A distributed storage network according to any preceding claim in which said host computer characteristics include stored data item description data which describes data items already stored at said host computer.

14. A distributed storage network according to any preceding claim in which said interconnected computers comprise computers having differing hardware architectures and operating system programs stored thereon, each of said computers further storing common machine emulation code executable to translate code executable on said common machine to code executable on the hardware architecture and operating system of the machine on which the emulation code is executed.

20

15. A distributed storage network comprising:

a plurality of interconnected computers, each computer being operable to store data in one or more memories under the control of said computer;

25

each of said computers having access to processor executable code, said code comprising:

a) data item reception code processable to receive a data item;

30

b) data item storage requirements discovery code processable to find one or more requirements relating to said data item;

c) storage information provision code processable to provide storage information concerning one or more memories of said computer;

d) comparison code processable to compare said data item storage requirements
5 with said storage information provided by said computer; and

e) storage decision code processable to decide whether to store said data item in said one or more memories in dependence upon said comparison.

10 16. A method of operating a network of interconnected computers, said computers including a plurality of host computers and a least one client computer, said method including the steps of:

operating said client computer to:

15

a) initiate storage of a data item on one or more of said plurality of host computers; and

b) generate one or more interpretable storage conditions indicating characteristics of host computers suitable for storing said data item;

20

operating said host computer to:

c) provide host characteristic data indicating one or more characteristics of said host computer;

25

operating one of said interconnected computers to:

d) interpret said one or more interpretable storage conditions in the light of said one or more host characteristics provided by said host computer and thereby to establish
30 whether said host computer meets said storage conditions;

further operating said host computer to:

e) store said data item at said host computer on finding that said host computer meets
35 said storage conditions.

17. A computer readable storage medium storing code executable to carry out method steps a) and b) of claim 16.

5 18. A computer readable storage medium storing code executable to carry out method steps c), d) and e) of claim 16.

19. A computer readable storage medium storing code executable to carry out the method steps of claim 16.